
Introduction

Thank you for purchasing the Alesis Q20 Professional 20-Bit Master Effects Processor. To take full advantage of the Q20's functions, and to enjoy long and trouble free use, please read this user's manual carefully.

How To Use This Manual

This manual is divided into the following sections describing the various modes of the Q20. Though we recommend you take time to read through the entire manual once carefully, those having general knowledge about effects devices should use the table of contents and index to reference specific functions while using this device. If you are planning to use the digital I/O, read Chapter 7 carefully.

Chapter 1: Setting Up. Deals with the necessary preparation before using, including connections to other components, such as instruments, mixing consoles, and multitrack recorders, as well as digital connections to ADAT.

Chapter 2: Your First Session with the Q20. A basic introduction to getting the unit up and running, auditioning the factory Programs, adjusting levels, comparing and storing edited Programs.

Chapter 3: Overview. A detailed look at the signal processing capabilities of the Q20, the concepts of multi-effect programming, and a description of the many available effects.

Chapter 4: Making Your Own Programs. A guided tour for programming typical single and multi-effect applications.

Chapter 5: Description of Controls. A "dictionary" of all parameters, buttons and connectors, including Global and MIDI mode parameters.

Chapter 6: Advanced Applications. Advanced uses of the Q20, such as MIDI functions, Modulation, Local Generators, footswitches and using "tap tempo" to control delay times.

Chapter 7: Digital Connections. How to use the Q20's digital ins and outs in an all-digital studio.

Chapter 8: Troubleshooting. Contains the Troubleshooting Index, maintenance and service information, and MIDI implementation chart.

Conventions

The buttons, knobs, and rear panel connectors are referred to in this manual just as their names appear on the Q20, using all capital letters and in brackets (*Examples:* [PROGRAM] button, [< BLOCK] button, [VALUE/ENTER] knob/button, [DIGITAL IN] connector, etc.).



When something important appears in the manual, an icon (like the one on the left) will appear in the left margin. This symbol indicates that this information is vital when operating the Q20.

CONTENTS

1: Setting Up	7
Unpacking and Inspection.....	7
AC Power Hookup.....	7
Line Conditioners and Protectors.....	7
Audio Connections.....	8
Typical Applications.....	8
Interfacing Directly with Instruments.....	9
Interfacing to a Mixing Console.....	10
When to use Balanced Connectors.....	15
Avoiding Ground Loops.....	15
MIDI	16
Digital Connections.....	16
Footswitches.....	17
Advance	17
Bypass.....	17
Tap Tempo.....	18
2: Your First Session With The Q20	19
Powering Up	19
Setting Levels.....	19
The Value/Enter Knob.....	20
Adjusting the Display Contrast	20
Auditioning Internal Programs.....	21
Switching Between Preset and User Banks	21
Example Programs.....	22
96: "VerbOfMyDreams"	22
97: "Guitar Rack "	22
98: "Stereo Plates"	22
Adjusting Effects Levels.....	23
Comparing an Edited Program to its Original Settings.....	24
Restoring an Edited Program to its Original Settings	24
Storing Edited Programs.....	25
Auditioning Programs before Storing.....	25
Bypassing Effects.....	26
Global Direct Signal Muting.....	26
3: Overview	27
The Architecture of the Q20	27
What is a Block?	27
Selecting and Editing Blocks.....	27
Routing "Patch Cords" Between Blocks	28
Quick Route	29
Setting the Routing Levels.....	29
The L/R IN.....	30
Reaching the Outputs - L/R OUT	30
Limit Handling.....	30
Equalization.....	32
Filters	32
Shelving EQs.....	33
Single Band EQs.....	33

Multiband EQs.....	34
5 Band Graphic EQ.....	34
Resonator.....	35
Mono/Stereo Tremolo	35
Stereo Simulator.....	35
Overdrive.....	36
Triggered Panning with Doppler.....	37
Phase Inverter	38
Pitch Effects	39
Mono Chorus	39
Stereo Chorus.....	39
Quad Chorus.....	40
Mono Flanging.....	40
Stereo Flanging.....	41
Phasor.....	41
Mono/Stereo Lezlie Cabinet	41
Pitch Shifter	42
Pitch Detune.....	42
Ring Modulator.....	42
Triggered Flanging.....	42
Delay.....	44
Mono Delay and Stereo Delay	44
Ping Pong Delay.....	44
Multi Tap Delay.....	44
Tap Tempo Mono Delay and Ping Pong.....	44
Sampling.....	45
Reverberation.....	49
Mono Room.....	49
Room 1.....	49
Hall 1.....	49
Plate 1.....	49
Chamber 1	49
Room 2.....	49
Hall 2.....	49
Plate 2.....	50
Chamber 2	50
Large Plate.....	50
Large Room.....	50
Spring.....	50
Nonlinear.....	50
Reverse.....	50
Reverb Parameters.....	51
Decay.....	51
Damping – Hi & Lo	51
Reverb Density	51
Diffusion	51
Input High Frequency Roll Off.....	52
Predelay.....	52
Predelay Mix.....	52
Reflection Level and Spread.....	52
Reverberation Swirl.....	52
Reverberation Attack.....	52
Gating	53

4: Making Your Own Programs	55
Getting Started	55
Programming A Single Block.....	56
Type.....	56
Routing.....	57
Parameter.....	59
Mix.....	60
Programming Multiple Blocks.....	61
Defining New Blocks.....	61
Deleting Unnecessary Routings	62
Patching In The New Blocks.....	62
Adjusting Parameters	62
Moving , Swapping and Copying Blocks	64
Block Move.....	64
Block Copy & Paste.....	65
Changing Effect Types.....	66
5: Description of Controls.....	67
Front Panel	67
Input Level	67
Output Level.....	67
LED Meter	67
Display.....	67
Value/Enter.....	68
Program.....	69
Store.....	70
Compare.....	70
Bypass.....	71
< Block >.....	71
< Page >	71
Type.....	72
Parameter.....	72
Routing.....	73
Mix.....	73
Global	74
Name	76
MIDI	76
Modulation.....	78
Power	78
Rear Panel.....	79
Power	79
MIDI In.....	79
MIDI Thru/Out.....	79
Bypass.....- Bypass Footswitch.....	79
Advance	79
48kHz in.....- Sample Clock Input.....	79
Digital In	80
Digital Out.....- ADAT Digital Audio Out.....	80
Digital In	80
Digital Out.....- S/PDIF Digital Audio Out	80
Left/Right In.....- Analog Audio In.....	80
Left/Right Out	80
Left/Right Out	80

Effect Parameters.....	81
Equalization.....	81
Pitch.....	82
Delay.....	83
Reverberation.....	84
6: Advanced Applications.....	87
MIDI Functions.....	87
Global MIDI Channel.....	87
Receiving Program Changes.....	87
Selecting Banks via MIDI.....	88
Program Change Table.....	88
SysEx Storage.....	89
MIDI Thru.....	90
Realtime Modulation Functions.....	91
Selecting the Modulator.....	91
Choosing a Target.....	92
Choosing a Source.....	95
Setting the Amplitude.....	95
Local Generators.....	96
Footswitch Controls.....	101
Program Advance.....	101
Bypassing Effects.....	101
Block Bypass via MIDI.....	102
Controlling Delay Time via Tap Tempo.....	102
MIDI Control of Tap Tempo Delay.....	103
7: Digital Connections.....	105
Overview.....	105
Digital Clock Synchronization.....	105
Connections.....	107
To a Single ADAT.....	107
To Two or More ADATs.....	108
To Two or More ADATs with a BRC or AI-2.....	109
To a Digital Mixer.....	109
To the AI-1.....	110
From a QuadraSynth or QS-Series Synthesizer.....	110
Routings.....	111
To specific ADAT tracks.....	111
From ADAT through the Q20 back to ADAT.....	112
From the QuadraSynth or QS-Series through the Q20 back to ADAT.....	113
8: Trouble-Shooting.....	115
Trouble-Shooting Index.....	115
Checking the Software Version.....	116
Re-initializing.....	116
Total Reset.....	116
Error Messages.....	117
Maintenance/Service.....	118
Refer All Servicing To Alesis.....	118
Obtaining Repair Service.....	118
MIDI Implementation Chart.....	119
Specifications.....	120
Effects Processing Index.....	122

